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Please find below and/or attached an Office communication concerning this application or proceeding.

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**BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES**

Application Number: 10/056,716
Filing Date: January 22, 2002
Appellant(s): CHANDRASEKARAN ET AL.

Marcel K. Bingham
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed on 05/05/2008 and 04/09/2008 appealing from the Office action mailed on 06/04/2007.

(1) Real Party in Interest

A statement identifying by name the real party in interest is contained in the brief.

(2) Related Appeals and Interferences

The examiner is not aware of any related appeals, interferences, or judicial proceedings, which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

(3) Status of Claims

The statement of the status of claims contained in the brief is correct.

(4) Status of Amendments After Final

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

(5) Summary of Claimed Subject Matter

The summary of claimed subject matter contained in the brief is correct.

(6) Grounds of Rejection to be Reviewed on Appeal

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

(7) Claims Appendix

The copy of the appealed claims contained in the Appendix to the brief is correct.

(8) Evidence Relied Upon

| | | |
|---------------------------|---------|---------------|
| U.S. Patent No. 5,721,943 | Johnson | Feb. 24, 1998 |
| U.S. Patent No. 6336,134 | Varma | Jan. 1, 2002 |

(9) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims: 31-44.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 31-44, are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

As to claims 31 and 38, the claimed "a certain lock" at line 8 of claim 31 and line 10 of claim 38 is indefinite, because there are more than one "a certain lack" claimed in

these claims (see line 2 of claim 31 and line 4 of claim 38). In addition, what is the claimed “a certain lock” referred to (i.e., There are many different locks exist in the database art, does the claimed a certain refer to a “read lock”, or a “write lock” or others?)

As to claims 32-37 and 39-44, these claims have the same defects as their base claim respectively, hence, are rejected for the same reason.

Because the ambiguous nature of instant invention, the following art rejection is to the best that the examiner is able to ascertain.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

Claims 31-33, 36-40 and 43-44, are rejected under 35 U.S.C. 102(b) as being anticipated by Johnson (U.S. Patent No. 5,721,943).

As to claims 31 and 38, Johnson discloses the claimed features [e.g., Abstract, Fig. 5 and associated texts], comprising:

a requester transmitting to a lock management system a request for a control data lock on a first resource [e.g., Abstract];

said lock management system denying said request based on a blocking condition [e.g., the steps: 120 of 6A – the step 134, Fig. 6C] that, while in effect, said

lock management system does grant a request for a certain lock on a second resource different than said first resource [e.g., col. 3, lines 1-6, claim 10, steps: 150, 152, Fig. 7A, 170-176, Fig 7C & 178-184, Fig 7D];

said requester receiving from said lock management system a response that (1) denies said request for the certain lock on a resource [e.g., col. 14, lines 20-24, lines 41-48, the steps: 122, 124, 126, 128, 134, Fig. 6B] and (2) includes data that identifies the second resource [e.g., the step 130, Fig. 6C and associated texts];

said requester determining said blocking condition is no longer in effect by performing certain steps [e.g., Fig(s). 3, 4B, 5 and associated texts] that include: (1) said requester transmitting to said lock management a request for a lock on said second resource [e.g., steps; 136, 138, 140 Fig. 6C]; and said requester receiving from said lock management system a response that grants said request for said lock on said second resource [e.g., the late notification means at col. 7, lines 50-51, the steps: 140, 142, 144, Fig. 6C, col. 14, lines 30-46].

As to claims 32 and 39, in addition to the features disclosed in claims 31 and 38 respectively, the combined system of Johnson and McKean further discloses that the second resource is a transaction [e.g., the early notification routine, late notification routine at Record unit 130, Fig. 6B] and the first resource is a resource locked for the transaction [e.g., the lock types requested at 96, Fig. 5].

As to claims 33 and 40, in addition to the features disclosed in claims 32 and 39 respectively, the combined system of Johnson and McKean further discloses that the data that identifies a second resource includes a transaction id identifying the transaction [e.g., the LOCKID, TRXID, INTRXID of Record unit 130, Fig. 6B].

As to claims 36 and 43, in addition to the features disclosed in claims 31 and 38 respectively, the combined system of Johnson and McKean further discloses that when the blocking condition no longer prevents the lock management system from granting a lock on the first resource, said first requester informing the lock management system that blocking condition is no longer in effect [e.g., col. 7, lines 40-50].

As to claims 37 and 44, in addition to the features disclosed in claims 31 and 38 respectively, the combined system of Johnson and McKean further discloses that the first requester informing the lock management system that the blocking condition is no longer effect by making another request for a lock of the first resource, the request including data specifying that the blocking condition is no longer effect [e.g., col. 7, lines 36-52].

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the

invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 34-35 and 41-42, are rejected under 35 U.S.C. 103(a) as being unpatentable over Johnson (U.S. Patent No. 5,721,943) in view of Varma (U.S. Patent No. 6,336,134).

As to claims 34-35 and 41-42, in addition to the features disclosed in claims 31 and 38 respectively, the combined system of Johnson and McKean further discloses that the first resource is a data block [e.g., Johnson: Fig. 9B]

However, Varma discloses that the claimed blocking condition that based on the data block undergoing a marking block-split operation [e.g., col. 18, lines 44- col. 19, lines 6, Fig. 15 and associated texts].

Johnson and Varma are both in the same endeavor to optimize concurrent shared data processing via data block locking mechanism, thus, with the teachings of Johnson and Varma in front of him or her, it would have been obvious for an ordinary skilled person at the time the invention was made, to apply Varma's marking block-split operation in Johnson's invention, because by doing so, the combined system will provide an upgraded dynamic locking mechanism of data blocks to facilitate concurrent shared data accessing without entering into deadlock.

(10) Response to Argument

Appellant's arguments filed on November 15, 2006 have been fully considered but they are not persuasive.

The examiner first disagrees with appellant's arguments against the 35 U.S.C. 112, second paragraph rejections as applied to claims 31-44 under Section A. The arguments are summarized as following:

- 1) both claims 31 and 38 "claim a certain lock" in several limitations;
- 2) the term "certain lock" means cannot be discerned.

In response to the above arguments, the examiner first noted that the phrase "a certain lock" is indefinite because in the computer data processing art that "a request for a certain lock" only happened in a concurrent multi-processing environment, however, this feature is not recited claims 31 and 38, instead claim 38 seems to claim that the request for a lock could happen in a one processor environment which deemed to make the claims as ambiguous.

In addition, it is well known in the computer data processing art that there are many different type of locks exist in the art, what does the claimed "a certain lock" refer to? Is it referred to a "read lock", or a "write lock", or others? Since the nature of the claimed subject matter "a certain lock" as recognized by the appellant is not named or specified, hence, it renders the claims as indefinite.

The examiner further disagrees with appellant's piecemeal interpretation and arguments against the 35 U.S.C. § 102(b) rejections as applied to claims 31-33, 36-40 and 43-44 under Section B.

In reply to the arguments under Section B, the examiner first noted that there is a typing error in the Section B, i.e., the phrase "**Rejections Based on 102(e)**" should be changed to "**Rejections Based on 102(b)**", because Johnson's prior art is patented on

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Feb. 24, 1998, which is more than one year before appellant's application effective filing date.

Furthermore, in Section B appellant mainly argued that Johnson fails to suggest in anyway the following limitations:

a) claims 31 and 38 require a response for denying a first lock request because of a blocking condition, where the response includes data that identifiers a second resource for which a second lock may be requested to determine whether the blocking condition is no longer in effect.;

b) claims 32 and 39 require a response for denying a first lock request because of a blocking condition, where the response includes data that identifies the transaction as the second resource.

In reply to the above arguments, the examiner would like to direct appellant's attention to the following excerpts and figures disclosed by Johnson:

"This invention relates to apparatus and methods for supporting concurrent dynamic access to control data. The present invention is particularly useful in expert systems for supporting concurrent dynamic access between those program users creating or modifying production rules, and those users executing them in inferencing sessions. The invention is also useful in the context of ordered rule processing systems, such as workflow managers. Again, there needs to be dynamic, concurrent access by those users changing the rules and those users using them to control their execution flow." (col. 1, Field of the Invention)

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"In accordance with the present invention, the first program to request a lock of any type on a section of control data is granted the lock. A section of control data might be a rule, or set of rules, in an expert system inferencing session or ordered rule processing session. One example of ordered rule processing session is a process execution controlled by a workflow manager. When another program requests a lock on the same section of control data, the second lock is granted if the two locks do not conflict and denied if the two locks conflict. As a feature of the present invention, both programs are notified of the situation if the two locks do conflict but, under the circumstances, it is likely that one or the other of the two users would be willing to change the lock held or requested so that the request could be accommodated. The users are permitted to negotiate the two locks. The negotiation is successful and the second lock is granted if the lock holder gives up the lock or changes it to a type which does not conflict, or the requester changes the type of lock requested to a type which does not conflict." (col. 2, lines 64 - col. 3, lines 14)

"As another feature of the invention, a lock holder program may request late notify, which informs the program when another lock has been granted on that section of control data. A lock holder or requestor program may alternatively request early notification, before a lock is granted, when possible conflicts exist with other lock holders." (col. 3, lines 42-47)

As set forth above, Johnson clearly disclosed his invention is used in the context of ordered rule processing systems which support the concurrent and dynamic accessing of user programs to create, modify and execute production rules in an inference or an ordered rule processing session [e.g., Please also refer to Fig.(s) 6a-c and associated texts]. Wherein the process is controlled by a lock management system

(or a workflow manager) to resolve the claimed block condition (or a conflict) raised due to lock requests issued from two different user programs for the same first resource (or the same section of control data) when one of the request was denied.

Furthermore, Johnson clearly disclosed his system resolves the claimed block condition (or a conflict) by using negotiation and notification techniques. Wherein when the block condition [or a conflict, or a temp lock is in effect (114, Fig. 6A)] is raised, a response is sent to the users via the early notification processing (e.g., the steps: 124-134 in Fig. 6B). In case the negotiation is successful a response is sent to the users by the late notification processing [e.g., the steps: 130, 132, 136, 138, 140, 142 in Fig(s). 6B-C]. wherein both responses in the session execution work flow management system are coupled with the claimed second resource (e.g., the changed lock status or the Record object (130, Fig. 6B) which includes most up-to- date attributes such as Lock ID (LOCKID), Transaction ID (TRXID), Session ID (SESSIONID), Resource Version ID (VERSIONID), Rule Entity ID, Early Notify Routine, Late Notify Routine, etc in the current running session) to be sent to the users. As such, in contrary to appellant's arguments under Section B, Johnson certainly anticipated the argued/claimed limitations.

As to the arguments **under Section C**, the examiner points out since appellants fail to clearly distinguish the patentable novelty which he or she thinks the claims present in view of the state of the art disclosed by the references cited or the objections

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made. Further, they do not show how the amendments avoid such references or objections. The examiner concludes that the prior art read on the claimed features.

Based on the discussion above, it is believed that the rejections should be sustained.

(11) Related Proceeding(s) Appendix

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

Respectfully submitted,

/Susan Y Chen/
Partial Sig. Examiner
Art Unit 2161

Conferees:

/Apu M Mofiz/

Supervisory Patent Examiner, Art Unit 2161

/Tim T. Vo/

Supervisory Patent Examiner, Art Unit 2168

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In addition, appellant's arguments against the 35 U.S. § 103(a) rejections for claims 34-35 and 41-42 under Section C are not persuasive also.